

U.S. Serial No. 10/644,564  
Amendment Dated February 1, 2005  
Response To Office Action Dated November 1, 2004

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### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the above-identified application:

### **Listing of Claims**

1-8. (Canceled)

9. (Currently Amended) A fuel system for a turbine engine, comprising:

a first premix injector assembly comprising at least four injectors, wherein at least first and second injectors of the at least four injectors of the first premix injector assembly are positioned adjacent each other in the turbine engine and at least third and fourth injectors of the at least four injectors of the first premix injector assembly are positioned adjacent each other in the turbine engine;

a second premix injector assembly comprising at least four injectors, wherein at least first and second injectors of the at least four injectors of the second premix injector assembly are positioned adjacent each other in the turbine engine and at least third and fourth injectors of the at least four injectors of the second premix injector assembly are positioned adjacent each other in the turbine engine;

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at least one pilot nozzle, wherein the at least four injectors of the first premix injector assembly and the at least four injectors of the second premix injector assembly form a ring around the pilot nozzle;

wherein the first and second injectors forming a portion of the first premix injector assembly are positioned between the first and fourth injectors forming a portion of the second premix injector assembly and the third and fourth injectors forming a portion of the first premix injector assembly are positioned between the second and third injectors forming a portion of the second premix injector assembly; and

wherein the fuel system is capable of emitting fuel into the turbine engine through the first premix injector assembly without simultaneously emitting fuel into the turbine engine through the second premix injector assembly.

10. (Original) The fuel system of claim 9, wherein the fuel system is capable of emitting fuel into the turbine engine through the second premix injector assembly without simultaneously emitting fuel into the turbine engine through the first premix injector assembly.

11. (Original) The fuel system of claim 9, wherein the at least four injectors of the first premix injector assembly and the at least four injectors of the second premix injector assembly are spaced apart from each other a substantially equal distance.

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12. (Canceled)

13. (Original) The fuel system of claim 9, wherein each injector of the first and second premix injector assemblies is separated from each other by about 45 degrees relative to a longitudinal axis of the combustor.

14. (Original) The fuel system of claim 9, wherein the at least four injectors of the first premix injector assembly and the at least four injectors of the second premix injector assembly are positioned substantially parallel to each other.

15. (Currently Amended) A method for reducing a size of an interface between fueled and unfueled regions in a fuel system of a turbine engine operating in fuel staging condition, comprising:

supplying fuel to a first premix injector assembly of a fuel system comprising a first premix injector assembly, and a second premix injector assembly, and at least one pilot nozzle, wherein the at least four injectors of the first premix injector assembly and the at least four injectors of the second premix injector assembly form a ring around the pilot nozzle, the first premix injector assembly comprising at least four injectors positioned adjacent each other in the turbine engine and forming pairs of injectors and the second premix injector

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assembly comprising at least ~~two~~ four injectors positioned adjacent each other in the turbine engine and forming pairs of injectors positioned between the pairs forming the pairs of injectors adjacent to the at least two injectors of the first premix injector assembly; and emitting fuel from the at least four injectors of the first premix injector assembly without simultaneously ejecting fuel from the second premix injector assembly.

16. (Canceled)

17. (Original) The fuel system of claim 15, wherein emitting fuel from the at least four injectors of the first premix injector assembly comprises emitting fuel through at least first, second, third and fourth ejectors, wherein the first and second ejectors are adjacent each other and the third and fourth ejectors are adjacent each other and the first and fourth injectors of the first premix injector assembly are separated by at least two injectors of the second premix injector assembly and the second and third injectors of the first premix assembly are separated by at least two injectors of the second premix injector assembly.

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